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FACTORS FOR SUCCESSFUL FARM MANAGEMENT IN TODD, CHRISTIAN AND WARREN COUNTIES.

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PREFACE

This report is based upon a business analysis of 303 farms within the limestone area of southwestern Kentucky, for the year 1929.[1] One hundred and thirty-nine of the farms were in Todd County, 67 in Christian County and 97 in Warren County. While the line of division between the limestone area and the Chester sandstone area in Kentucky passes thru these three counties, all the farms included are within the limestone area. The surface of the area is a gently rolling plain. The soils are for the most part a loam of high natural fertility underlain by a subsoil having a foundation largely of the St. Louis limestone formation, usually well aerated and well supplied with mineral plant food elements except phosphorus. Christion and Todd Counties are in the drainage basin of Red River and Little River, tributaries of the Cumberland; Warren County is in that of the Green and Barren Rivers.

The region has good market facilities. Three federal highways and several state highways make possible the year-round transportation of products by truck from farms to outside markets and to local markets within the area. The area is well served by railroads to central markets at Nashville, about 70 miles distant, Evansville, about 100 miles distant, and Louisville, about 220 miles distant. Most of the livestock shipped from the area goes to these three markets.

Dark-fired tobacco, one of the most important money crops of the area, is marketed chiefly at Hopkinsville (population 10,746) in Christian County and at Clarksville (population 9,242) in an adjoining county in Tennessee. Hopkinsville in the last few years has become an important market for white burley tobacco. Bowling Green (population 12,348) in Warren County, is also an importent tobacco market and trade center.

[1] Acknowledgment is made of the services of Mr. W. B. Collins and Mr. Leslie Wright who gathered the field data of the study.

BULLETIN NO. 347

Factors for Successful Farm Management in Todd, Christian and Warren Counties.

By W. L. ROUSE

PURPOSE AND METHOD OF STUDY

The principal object of the study was to throw light on the factors upon which profitable farming in the region depend and the systems of organization and management which appear most likely to give the largest net returns to farm operators. An effort was made to restrict the farms studied to those which were representative of operators actively engaged in farming who derive all or the major part of their incomes from the operation of their farms. Contacts with the farmers interviewed were made thru the county agricultural agents, bankers and other persons having a knowledge of the farmers and agricultural conditions in the various localities. Willingness and ability of the farmers to give reliable data on sales, expenses and other phases of their business were factors in determining the farms to be analyzed. Without doubt these farms were better organized and managed and more profitable than the average farms of the communities in which they were located. The data upon which the detailed analysis of the business of these farmers is based were obtained by personal visits to the farms. In some cases the figures were derived from records kept by farmers, but in the majority of cases they represented estimates of the various items, the estimates being carefully checked to verify their accuracy.

STATUS OF OPERATORS AS TO LAND TENURE

The tenure status of the 303 operators was as follows: 197 farmed only land that they owned; 52 were owners who rented some land, of whom 43 rented on shares, 7 rented for cash, and 2 rented some land for cash and some on shares; 13 were owners who rented out some of their land, of whom 12 rented out on shares and 1 for cash; 4 operators were owners who rented some

land and rented out some land, all on shares. Of the 37 non-owners, 34 rented land on shares, 2 rented both on shares and for cash and 1 rented for cash. Ninety-three of the operators rented some land, of whom 56 were owners and rented additional land and 37 rented all the land they operated.

TYPES OF FARMING

Eighty-seven percent of the land of the 303 farms studied was tillable. The average size of the farms was 274 acres of which 238 acres was tillable. The tillable land consisted of 128 acres of crops, 103 of rotation pasture, 6 of permanent pasture, and 1 of idle land. The 36 acres of non-tillable land was made up of 26 acres in woods, 5 in open pasture and 5 in roads and lots.

That this is both a crop and a livestock area is indicated by the proportion of the total receipts from each. Approximately 37 percent of the total farm receipts came from livestock enterprises, while 55 percent was from the sale of crops. Table 1 shows the number of farms with receipts from the various enterprises and number of farms with considerable receipts from

TABLE 1. Types of Farming on 303 Todd, Warren and Christian County Farms, 1929

Item	No. farms with receipts from	Number of farms with considerable receipts from specified enterprises, and position of enterprise.								
		Total*	1st	2nd	3rd	4th	5th	6th	7th	8th
Tobacco	286	286	198	59	18	11	—	—	—	—
Dairy cattle	291	272	46	88	43	32	30	12	10	11
Hogs	262	264	28	60	76	51	23	17	7	2
Poultry	268	248	2	7	25	47	62	50	30	25
Corn	164	164	3	22	35	44	25	20	13	2
Sheep	121	115	2	7	20	22	29	20	9	6
Hay	115	92	4	5	11	16	15	19	16	6
Wheat	85	82	1	10	21	14	16	13	6	1
Beef cattle	83	82	4	19	19	19	14	3	3	1
Other sources**	79	70	9	13	11	6	8	15	5	3
Work stock	66	58	—	1	3	8	6	14	19	7
Clover seed	51	47	3	7	8	6	8	9	2	4
Strawberries	30	29	3	4	6	8	5	—	2	1
Truck	29	19	—	1	2	2	6	4	3	1
Oats	22	18	—	—	1	—	3	4	7	3
Orchard grass seed	16	15	—	—	2	5	2	5	—	1

* On the other farms on which these enterprises exist they were of small consideration.

** Includes outside work for the operator, wood-lot products and money from rent.

specified enterprises and the position of the enterprises. The crops of major importance in the area were tobacco, corn, hay, wheat, clover seed and strawberries.

Corn was the chief feed crop of the area and was grown on 299 of the 303 farms. The acreage in corn was 42 percent of the total acreage in crops. In addition, corn was grown for silage on 32 farms.

Hay of some kind was produced on 293 of the 303 farms. There was an average of 32 acres of hay per farm; that is, about 24 percent of the total crop acreage was used for the production of hay. On 234, or three-fourths of the farms, there was some legume hay. Alfalfa was grown on 117 of the farms, with an average of 11 acres for the farms having alfalfa, and on 10 farms there was no other hay. Nineteen farms produced only clover hay, while some clover for hay was grown on 81 of the farms. On 61 of the farms soybeans or cowpeas were grown for hay; however, none of the farms depended entirely upon this source of hay. On 135 farms some grass hay[2] was cut, while on 58 farms it was the only hay harvested.

Wheat grown on 110 farms, averaged 39 acres for the farms on which that crop was grown. Seventy-four farms grew oats, with an average of 15 acres for the 74 farms. On 11 farms some barley was grown, with an average of 12 acres for the 11 farms, and on 4 farms some rye was grown, averaging 8 acres per farm for the 4 farms.

Tobacco grown on 285 farms averaged 10.5 acres for the farms on which that crop was grown. Three kinds of tobacco were produced in the area, white burley, one sucker and dark-fired. White burley tobacco was grown on 191 farms, with an average of 5.4 acres per farm for the farms on which it was grown, and on 84 farms no other tobacco was grown. Dark-fired tobacco was grown on 108 farms, with an average acreage of 15.8 acres per farm for the farms on which it was grown, and on 62 farms it was the only kind of tobacco grown. One-sucker tobacco was grown on 41 farms, with an average of 7.6 acres for

[2] Including timothy, millet and oats for hay.

the farms on which it was grown, and on 17 farms it was the only kind of tobacco grown.

In Todd County dark-fired tobacco was the most generally grown type. It was produced on 107 of the 139 farms and on 59 farms no other tobacco was produced. White burley tobacco was grown on 60 farms and on 12 farms it was the only tobacco grown. Both white burley and dark-fired tobacco were grown on 41 farms, while white burley and one-sucker were produced on 5 farms. Two operators produced all three types of tobacco.

In Warren County both white burley and one-sucker were produced and on the farms included in the study white burley was most generally grown, while in the county as a whole one-sucker was probably the most prevalent. White burley was grown on 68 of the 85 farms and on 52 farms no other tobacco was grown. One-sucker was produced on 33 of the farms and was the only tobacco grown on 17 farms.

In Christian County white burley and dark-fired tobacco were grown. White burley was produced on 63 of the 67 farms and on 20 farms was the only tobacco grown. Dark-fired tobacco was grown on 46 farms and on 3 farms was the only tobacco

TABLE 2. Average Crop Acreage on 303 Farms

Item	All Farms	Todd County	Christian County	Warren County
Number of farms	303	139	67	97
Total crop acres per farm	128.1	113.1	192.3	105.3
Corn	54.5	50.3	78.0	44.3
Wheat	14.2	9.2	26.9	12.7
Oats	3.6	2.1	5.2	4.6
Other small grain	1.0	.3	1.2	1.8
Silage	1.3	.9	2.3	1.3
Clover hay	5.5	5.5	7.1	4.2
Mixed clover and timothy hay	9.4	8.6	20.4	2.9
Grass hay	7.5	9.1	7.9	5.1
Alfalfa hay	4.4	3.3	4.1	6.2
Cowpea and soybean hay	3.4	1.2	3.1	6.6
Other hay	2.0	2.3	1.8	1.6
White burley tobacco	3.4	1.7	6.9	3.4
Dark-fired tobacco	8.0	11.4	12.4	1.3
One-sucker tobacco	1.0	1.3	.2	———
Clover seed (all kinds)	4.8	4.2	11.1	1.6
Other seed crops	2.2	———	1.0	6.2
Strawberries	.3	.1	.5	.4
Other crops	1.6	1.6	2.2	1.1

grown. On 43 farms both white burley and dark-fired tobacco were grown, while on one farm all three types were grown.

A detailed distribution of crops for the 303 farms and for each of the county groups is shown in Table 2. The total acreage in crops occupied 47 percent of the total land or 54 percent of the tillable land. Corn, wheat, hay and tobacco occupied 88 percent of the total crop acreage, or 41 percent of the land operated.

The livestock of the area, in the order of the number of farms having them, were poultry, dairy cattle, hogs, sheep, and beef cattle. Work stock, either horses or mules, were found on every farm in the study. There were dairy cows on 293 of the 303 farms; heifers over one year old on 200 farms; calves under one year old on 202 farms; and beef cattle on 86 farms. There were chickens on 299 farms, hogs on 284 farms and sheep on 128 farms. Table 3 shows in detail the number and kinds of livestock on the 303 farms and on each of the three county groups.

TABLE 3. Average Numbers of Livestock on 303 Farms

Item	All Farms	Todd County	Christian County	Warren County
Number of farms	303	139	67	97
Livestock (No. beginning of year)				
Horses, not worked	.4	.4	.8	*
Work horses	1.1	1.0	.8	1.4
Mules	5.2	5.2	6.9	4.0
Colts	.1	.1	*	.1
Cows	8.4	6.8	12.0	8.2
Heifers, over one year old	2.1	1.8	2.0	2.4
Calves, under one year old	1.7	1.8	1.1	2.1
Bulls, over one year old	.5	.4	.7	.4
Steers, over one year old	2.8	1.4	4.9	3.4
Bucks, over one year old	.6	.4	1.0	.6
Ewes	14.6	13.0	25.3	9.4
Lambs, under one year old	.2	.3	.2	———
Boars	.1	.1	.1	.1
Brood sows	3.6	2.8	5.1	3.6
Other hogs	14.2	4.2	16.9	26.6
Pigs	.4	.7	———	.2
Chickens (mostly hens)	66	58	108	70
Turkeys	.4	.1	.6	.6

* Indicates less than one-tenth of one head.

The number, and classes, of livestock kept indicate the size of business as well as the type of farming carried on in the area.

The receipts from livestock and livestock products amounted to 37 percent of the total. The enterprises that contributed to the total receipts were: Hogs, 14 percent; dairy cattle and dairy products 12 percent; beef cattle, 5 percent; poultry and poultry products, 3 percent; sheep, 2 percent. Fifty-five percent of the total receipts was derived from crops, as follows: Tobacco, 39 percent; corn, 4 percent; wheat, 3 percent; clover seed, 3 percent; hay 2 percent; strawberries, 1 percent; other seed crops, 1 percent; potatoes, truck and fruit, 1 percent; barley, rye, oats and straw, 1 percent. The remaining 8 percent was made up of increase in feed inventories, work off the farm by the operator, sale of wood-lot products and money received from rent.

Of the 303 farms 91 percent reported sales of dairy cattle and dairy products; 88 percent, poultry and eggs; 80 percent, hogs and pork; 38 percent sheep and wool; 20 percent beef cattle. Percentages of farms reporting sales of crops were as follows: Tobacco, 94 percent; corn, 54 percent; hay, 38 percent; wheat, 28 percent; clover seed, 16 percent; strawberries, 10 percent; truck crops, 9 percent; oats, 7 percent, barley, 2 percent; fruit, 2 percent; straw, 2 percent; rye, 1 percent and soybean seed, redtop seed, cottonseed, silage and cotton, less than 1 percent. Percentages of farms that reported miscellaneous receipts were: outside work, 18 percent; wood-lot products, 3 percent; rent, 3 percent.

PROFITS OF FARM OPERATORS

The profits of each of the 303 farm operators were determined. This figure indicates the net return obtained by each operator for his labor and management during the year and is regarded as an indicator of his efficiency as a farmer. A summary of average size of farm, acres in crops, investment, receipts, expenses, and earnings of all the operators is shown in Table 4. The same items are shown for each of the three counties included in the study.

TABLE 4. Farm Business Summary for 303 Farms

Item	All Farms	Todd County	Christian County	Warren County
Number of farms	303	139	67	97
Size of farm (acres)	274	276	404	198
Acres of crops	128	113	192	105
Investment per farm	$20,973	$16,428	$30,384	$20,986
Value of farm per acre	65	51	64	91
Receipts, total	5,293	4,432	7,945	4,748
Expenses, total	2,693	2,203	3,992	2,550
Net farm income	2,600	2,229	3,953	2,198
Interest on investment @ 5%	1,048	821	1,519	1,050
Labor income	1,552	1,408	2,434	1,148
Value of family living from farm	627	625	761	536
Operator's earnings	2,179	2,033	3,195	1,684

TABLE 5. Average Capital Investment on 303 Farms

Item	All Farms	Todd County	Christian County	Warren County
Capital, total per farm	$20,973	$16,428	$30,384	$20,986
Real estate	17,852	13,953	25,767	17,972
Land	11,632	8,575	16,607	12,574
Dwelling	2,826	2,634	3,785	2,440
Tenant houses	615	535	1,026	446
Other buildings	2,339	1,824	3,843	2,038
Fences	440	385	506	474
Livestock, total	1,970	1,563	2,803	1,978
Horses and mules	573	507	808	505
Dairy cattle	683	614	813	693
Beef cattle	298	167	583	288
Sheep	135	113	246	90
Hogs	205	102	238	329
Poultry	76	60	115	73
Machinery	757	606	1,270	619
Feed and supplies	394	306	544	417

CAPITAL INVESTMENT

The total capital investment averaged $20,973 per farm and ranged from $2,549 to $87,320 per farm. Twenty-two farms had a total investment of more than $50,000 each while only 16 had an investment of less than $5,000. About one-third of the farms ranged between $10,000 and $20,000 in total investment. Of the total investment, an average of 85 percent was in real estate and 15 percent in working capital. Of the working capital livestock accounted for 9 percent, machinery 4 percent, and

feed and supplies 2 percent. As the figures in Table 5 indicate, there was little difference in the percent of distribution of capital in the farms in the three counties. There was scarcely any difference between the distribution of capital of the most profit able group of farms and of the least profitable group.

FARM RECEIPTS

The farm receipts of the 303 operators averaged $5,293 (Table 6). The highest receipts of any one farm were $28,775 as compared with $332, the lowest receipts for any one farm. Ninety-four, or 31 percent, of the 303 farms had total receipts of less than $2,500; 89 or 29 percent had receipts of more than $2,500 and less than $5,000; 54, or 18 percent, had receipts ranging from $5,000 to $7,500; 31 or 10 percent, had receipts ranging from $7,500 to $10,000, and 35, or 12 percent, had receipts amounting to more than $10,000.

The sale of crops amounted to 55 percent of the total farm receipts. Of this, tobacco brought 39 percent of the total receipts. For other items contributing to the crop receipts see Table 6. Thirty-seven percent of the total farm receipts came

TABLE 6. Farm Receipts on 303 Farms

Item	All Farms	Todd County	Christian County	Warren County
Farm receipts, total	$5,293	$4,419	$7,940	$4,719
Crops	2,903	2,786	4,508	1,962
Corn	231	223	335	170
Wheat	180	144	257	178
Hay	126	83	211	131
Tobacco	2,066	2,141	3,146	1,214
Clover seed (all kinds)	181	149	421	59
Strawberries	60	17	98	97
Other crops	59	29	40	113
Livestock	1,935	1,251	2,698	2,388
Horses and mules	7	5	19*	27
Beef cattle	263	147	533	244
Dairy cattle	225	221	295	178
Dairy products	425	263	442	650
Sheep and wool	141	119	236	106
Hogs and pork	729	392	963	1,050
Poultry and eggs	145	104	248	133
Outside work	40	52	68	2
Other miscellaneous	94	87	96	104
Increase in feed and supplies	321	243	570	263

* Decrease.

from livestock. Of this hogs and the dairy enterprise contributed each about a third, beef cattle about a sixth and poultry and sheep the remainder. Outside work of the operator and other miscellaneous receipts amounted to less than 3 percent of the total receipts. Increases in inventories of feed and supplies averaged 6 percent of the total receipts.

Family Living Furnished by the Farm. Altho this is an area of large farms and large investments yet the analysis showed the importance of the perquisites furnished by the farm to the family living. The value of the family living furnished by the farm averaged $628 for the 303 farms. Of this amount, food constituted 54 percent, fuel 1 percent, and the use of the family residence 45 percent. The amounts and values of the various items for the area as a whole and for each of the three counties are shown in Table 7. The most profitable group of farms furnished perquisites amounting to $1,054 as compared

TABLE 7. Perquisites Furnished by the Farm for the Family Living, on 303 Farms

Item		All Farms	Todd County	Christian County	Warren County
Family living from farm	Dolls.	628	625	761	536
Foods, total value	Dolls.	342	359	379	291
Corn	Bus.	.4	.3	—	.7
	Dolls.	*	*	—	1
Wheat	Bus.	3	5	.4	2
	Dolls.	3	5	*	2
Fruits and vegetables	Dolls.	84	87	96	71
Butter	Lbs.	126	125	152	109
	Dolls.	38	37	46	33
Whole milk	Gals.	241	264	237	210
	Dolls.	48	52	47	42
Cream	Pts.	8	9	9	4
	Dolls.	1	1	1	*
Skimmilk	Gals.	72	38	46	135
	Dolls.	4	2	2	7
Eggs	Doz.	129	135	134	116
	Dolls.	27	28	28	25
Poultry	No.	67	66	73	64
	Dolls.	35	34	38	35
Pork	Lbs.	1,267	1,393	1,505	923
	Dolls.	101	111	119	74
Beef and mutton	Lbs.	15	22	10	8
	Dolls.	1	2	1	1
Firewood	Cords	1.4	1.1	2	1.6
	Dolls.	3	2	4	3
House rent	Dolls.	283	264	378	242

* Indicates an average of less than one dollar or less than one-tenth of one unit.

with $510 for the least profitable group. The value of the dwelling was the item responsible for a large part of this difference.

FARM EXPENSES

The total expenses for the 303 farms averaged $2,693, of which current expenses constituted 83 percent. The other important expense items and the percentage of the total expenses which these items represent were unpaid family labor 4 percent. and depreciation of machinery, dwelling and other buildings 10 percent.

TABLE 8. Farm Expenses on 303 Farms

Item	All Farms	Todd County	Christian County	Warren County
Farm expenses, total	$2,693	$2,190	$3,987	$2,521
Current expenses	2,327	1,882	3,415	2,213
Hired labor	595	498	1,071	404
Cropper labor	585	568	681	543
Machinery	55	47	91	43
Buildings	78	58	101	89
Fences	37	23	34	60
Hay and other roughage	12	11	17	10
Concentrates, grain	231	131	276	345
Threshing, baling and other machine work	49	40	139	94
Horseshoeing	12	11	19	8
Veterinary, medicine, etc.	12	8	14	19
Breeding fees	3	3	2	3
Seeds and plants	90	73	142	79
Fertilizer	74	52	138	64
Lime	27	8	54	35
Spray material	8	9	13	3
Twine	5	3	7	6
Fuel and oil	45	27	88	39
Auto	82	58	126	85
Telephone	16	16	27	8
Insurance	62	51	82	63
Taxes	181	151	252	174
Other expenses	68	36	41	39
Depreciation	270	224	428	226
Unpaid family labor	96	84	144	82

The largest items of the current expenses were, hired labor which averaged 44 percent of the total, feed 9 percent, seed, lime and fertilizer 9 percent, taxes and insurance 9 percent. The percentage distribution of the expense items, except feed

purchased, was about the same in the three counties. Table 8 gives in detail a summary of the expenses for the 303 farms and for each county group. The expenditures for feed were relatively higher on the farms in Warren County, largely because there was more dairying on the Warren County farms.

SOME FACTORS OF EFFICIENCY ON THE MOST PROFITABLE FARMS COMPARED WITH THOSE OF THE AVERAGE AND THE LEAST PROFITABLE FARMS

Table 9 compares the profits and some important factors that affect profits on average farms, with those on the most profitable and least profitable groups, for the 303 farms. The labor income for the most profitable group averaged $6,028 while that for the least profitable group was minus $496. Operator's earnings for the most profitable group averaged $7,082 as compared with $14 for the least profitable group.

One reason indicated by the figures why the most profitable farms gave better returns than the least profitable ones was their larger size as measured by both acres operated and crop acreage. The most profitable farms had more than twice as many acres and about three times as many crop acres as the least profitable. The most profitable group had a total investment more than twice as large and an investment in livestock more than three times as large as the least profitable group. Another reason for the larger profits, suggested by the figures, is that the better farms were so organized as to afford larger total receipts and larger receipts per acre. Farm receipts for the most profitable farms were more than 5 times those for the least profitable, while the farm expenses were only a little over twice as large as those for the least profitable farms. For each hundred dollars of farm receipts, the most profitable farms had an expense of 41 dollars as against 87 dollars for the least profitable farms.

Greater use of livestock enterprises and of intensive crop enterprises like tobacco and strawberries appeared to be important factors in providing increased total returns, larger returns per acre, and larger labor incomes. The farms highest in income had more than three times as large an average invest-

ment in livestock as the farms lowest in income. The highest-income farms averaged 25.9 acres of intensive crops, as against 8.4 acres for the least profitable. The intensive crop was almost entirely tobacco.

The yields of crops averaged larger on the highest-profit farms than on the lowest-profit group, as indicated by the crop

TABLE 9. Some Factors of Efficiency on 303 Todd, Christian and Warren County Farms, Compared with the Same Factors on the Most Profitable and the Least Profitable Farms.

Item	All Farms	Most Profitable Farms	Least Profitable Farms
Number of farms	303	35	35
Size of farms (acres)	274	510	214
Crop acres	128.1	281.0	95.2
Intensive crops (acres)	12.8	25.9	8.4
Man equivalent	3.3	5.6	2.7
Productive man work units per man	252	295	218
Crop acres per horse	20.4	31.0	18.9
Crop index	100	107	89
Capital, total	$20,973	$42,081	$16,669
Real estate	17,852	35,843	14,317
Livestock	1,970	3,874	1,272
Machinery	757	1,623	851
Feed and supplies	394	741	229
Receipts, total	5,293	13,834	2,521
Crops	2,903	7,884	1,307
Livestock	1,935	4,821	1,037
Miscellaneous	134	373	40
Increase in feed and supplies	321	756	137
Receipts per acre operated	19.32	27.13	11.87
Receipts from tobacco, total	2,067	9,981	937
Value per acre of white burley tobacco	240	266	89
Value per acre of one-sucker tobacco	131	208	60
Value per acre of dark-fired tobacco	140	166	97
Price per pound of white burley tobacco	23.1c	24.9c	19.0c
Price per pound of one-sucker tobacco	12.3c	15.9c	8.6c
Price per pound of dark-fired tobacco	14.6c	16.8c	11.6c
Expenses, total	2,693	5,702	2,183
Current	2,327	5,118	1,860
Depreciation	270	493	263
Unpaid family labor	96	91	60
Expenses per $100 receipts	51	41	87
Farm income	2,600	8,132	338
Labor income	1,552	6,028	—496
Value of family living from the farm	627	1,054	510
Operator's earnings	2,179	7,082	14

index,[3] which averaged 107 for the most profitable group, as compared with 89 for the least profitable group.

The most profitable farms averaged 77 more productive days work per man than the least profitable group. A considerable part of this difference is due to the size of farms, number of intensive crop acres, and more efficient use of machinery as indicated by the larger number of acres of crops per man and per horse.

The average receipts per acre from white burley tobacco were $177 more for the most profitable farms that grew this kind, than for the least profitable. The most profitable farms that grew one-sucker tobacco averaged $148 more per acre for that crop than the least profitable, and the average receipts per acre from dark-fired tobacco were $69 more for the most profitable farms that grew it, than for the least profitable. These differences were largely due to both yield and quality as indicated by the pounds per acre obtained and the price per pound received.

Relation of Volume of Sales to Profits. The records indicate that good-sized receipts per acre are one of the marked characteristics of successful operators of farms in this area. The average receipts per acre for the 303 farms were $19.32. (See Table 10.) That the most profitable group of farms had labor incomes averaging more than $6,500 greater than the labor incomes of the least profitable group furnishes further evidence of the large influence of high receipts per acre on profits. The receipts per acre for the most profitable group of farms were $27.13, as against $11.87 per acre for the least profitable group.

Relation of Crop Yields to Profits. Good crop yields make it possible to get more units of production from a given acreage thereby providing more units for sale or to be used as feed. High yields are generally, if not always, closely related to profits.

[3] The crop index represents the relative yields of all crops on any farm or group of farms as compared with the average yield of all crops on all farms in the study, the latter being expressed as 100. The farm which has crop yields just equal to the area averages has a crop index of 100. Crop yields 10 percent above the average give a crop index of 110, while crop yields 10 percent below the average give a crop index of 90.

TABLE 10. Relation of Receipts per Acre to Profits, 303 Todd, Christian and Warren County Farms

Receipts per Acre	Number of Farms	Labor Income	Operator's Earnings
Less than $10	47	$32	$538
$10 to $15	59	692	1,260
$15 to $20	74	1,338	1,984
$20 to $25	36	2,086	2,673
$25 to $30	36	2,816	3,545
$30 or more	51	2,988	3,723
All farms	303	1,552	2,179

The analysis shows crop yield to be an important factor influencing profits in this area. This, as shown in Table 11, is measured by crop index. On the average, the farms which had the highest yields obtained the highest incomes. The group of farms with crop indexes of 125 or more returned to their operators labor incomes which averaged $2,418, as against $321 for the group of operators with crop indexes less than 75. As a rule the farms which had the higher yields of the major feed crops and cash crops returned the largest incomes. Experimental data and the experience of successful farmers indicate that land properly handled not only produces better than average yields but furnishes more abundant and better pasture, thereby making it practicable for operators to handle more livestock on a given acreage.

TABLE 11. Relation of Crop Yields to Profits, 303 Todd, Christian and Warren County Farms

Crop Index	Number of Farms	Labor Income	Operator's Earnings
Less than 75	45	$321	$772
75 to 100	129	1,249	1,834
100 to 125	83	2,209	2,943
125 and more	46	2,418	3,144
All farms	303	1,552	2,179

Relation of Efficiency of Labor to Profits. The records show that labor accomplishment per man exerted a marked influence on profits. (See Table 12.) For each farm, the total work accomplished, measured by acres of crops produced and num-

ber of livestock cared for, was calculated in terms of "productive work units," a unit representing approximately a day's work of ten hours. The number of day's work per man, for each farm, was derived by dividing the total days of work accomplished on that farm by the "man equivalent" employed on the farm during the year. An outstanding fact brought out was the large average accomplishment per man. As an average of 303 farms, 252 days of productive work were accomplished per man in the year. The average labor efficiency on the most profitable farms, as measured by the amount of work actually accomplished, was 35 percent higher than on the least profitable group. The importance of efficient handling of man labor is of special significance since the cost of hired labor was the largest single expense item.

TABLE 12. Relation of Productive Man Work Units per Man to Profits, 303 Todd, Christian and Warren County Farms

Productive Man Work Units per Man	Number of Farms	Labor Income	Operator's Earnings
Less than 200	72	$979	$1,567
200 to 250	89	1,276	1,896
250 to 300	67	1,772	2,432
300 and more	75	2,232	2,876
All farms	303	1,552	2,179

Another measure of the efficiency of man labor is the number of acres of crops per worker. On the 303 farms, an average of 38 acres of crops were worked per man. The number of acres of crops per man for the most profitable group of farms averaged 50 acres as against 35 acres for the least profitable group.

Relation of Intensive Crops to Profits. An organization with as many acres of intensive crops as it is possible to handle efficiently appears to be conducive to increased profits. However, the land must be of such quality that the crops produced on it bring not less than average prices. The acreage of intensive crops averaged 12.8 acres per farm for the 303 farms. The 12.8 acres was made up of 12.4 acres of tobacco and .4 acre of strawberries and truck crops. There was an average of 25.9

acres of intensive crops on the most profitable group of farms as compared with 8.4 acres for the least profitable group. Tobacco, the most important cash crop grown in the area, was produced on 285 of the 303 farms. Table 13 shows the effect that varying acres in intensive crops has upon profits.

TABLE 13. Relation of Acres of Intensive Crops to Profits, 303 Todd, Christian and Warren County Farms

Intensive Crop Acres	Number of Farms	Labor Income	Operator's Earnings
Less than 7	114	$774	$1,293
7 to 14	86	1,217	1,785
14 to 21	52	1,546	2,222
21 to 28	20	2,968	3,738
28 or more	31	4,436	5,452
All farms	303	1,552	2,179

Relation of Size of Farm to Profits. The size of business is usually an important factor in determining the net income of a farm operator. A business of good size affords a better chance for making good profits than a small business. However, a large business when conducted inefficiently will show a greater loss than a small business when conducted inefficiently. There are several ways of measuring the size of a farm business. The most important measures are number of acres operated, acres of crops, total capital investment, number of livestock, and amount of labor required. The figures of this study indicate that the highest-profit farms had a larger farm business than the lowest-profit farms. In Table 14 the farms are divided into four groups according to the number of acres operated. It will be noted that, on the average, as the size of farm increased the labor income increased. The group of 35 farms with highest profits averaged 510 acres per farm and returned to their operators labor incomes which averaged $6,028, as compared with the group of 35 lowest-profit farms which averaged 214 acres and returned labor incomes averaging minus $496.

Relation of Productive Animal Units per 100 Acres to Profits. This study shows that stocking farms well with live-

TABLE 14. Relation of Size of Farm to Profits, 303 Todd, Christian and Warren County Farms

Acres Operated	Number of Farms	Labor Income	Operator's Earnings
Less than 150	95	$588	$1,054
150 to 250	80	1,176	1,724
250 to 350	48	1,862	2,576
350 and more	80	2,886	3,731
All farms	303	1,552	2,179

stock suited to the farm was conductive to increased profits. Table 15 presents the relationship of productive animal units per 100 acres to profits. The figures indicate that on the farms with the most animal units the labor incomes were largest. The number of productive animal units per 100 acres averaged 6.8 for the 303 farms. The group of farms with the highest profits averaged 7.7 productive animal units per 100 acres, compared with 5 per 100 acres for the group of lowest-profit farms. Thus the figures indicate a distinct tendency for the farmers who had the largest amount of livestock and produced most of the feed consumed by their livestock to gain the largest profits. An adequate quota of livestock contributed a significant advantage by providing a market for a considerable amount of rough feed which could not otherwise be marketed.

TABLE 15. Relation of Productive Animal Units per 100 Acres to Profits, 303 Todd, Christian and Warren County Farms

Productive Animal Units per 100 Acres Operated	Number of Farms	Labor Income	Operator's Earnings
Less than 5	110	$1,287	$1,882
5 to 7.5	80	1,479	2,133
7.5 and more	113	1,861	2,500
All farms	303	1,552	2,179

FARM PROFITS AS AFFECTED BY THE NUMBER OF HIGH-EFFICIENCY FACTORS

Farm profits very rarely depend upon one factor alone but usually upon a combination of factors. The data in Table 16 indicate the direction which farmers in this area should go in

order to obtain larger farm profits. The 6 factors used in the table and the average for each of the factors, for the 303 farms, are as follows:

Receipts per acre operated	19.32	dollars
Crop yields measured by crop index	100	percent
Productive man-work days per man	252.5	days
Acres of intensive crops	12.8	acres
Size, measured by acres operated	274.0	acres
Productive animal units per 100 acres operated	6.8	units

One-fourth of the farms studied were below the average or above in only one factor, and these showed the lowest returns. As excellence in the important factors increased, earnings increased rapidly, until the 12 farms that were above the average in all six factors returned an average labor income more than six times as large as that of the 77 farms that excelled in only two factors. It should be noted however, that some farms did well financially notwithstanding low averages in some of the factors. Not all successful farms can or need be good in all factors for financial success.

TABLE 16. Relation of the Number of High-Efficiency Factors to Farm Profits

Factors Above Average	Farms	Receipts	Farm Income	Labor Income	Operator's Earnings
No.	No.	Dolls.	Dolls.	Dolls.	Dolls.
1 or none	78	2,077	880	343	797
2	77	3,884	1,818	962	1,522
3	74	5,977	2,761	1,528	2,207
4	37	7,376	3,833	2,504	3,216
5	25	10,048	5,094	3,462	4,325
6	12	14,713	8,818	6,419	7,532
Average	303	5,293	2,600	1,552	2,179

These figures show the importance of a well-balanced farm business. It is not merely good crop yields, or high-yielding livestock or high-priced tobacco which determines profits. Very often a farmer overemphasizes or makes a hobby of one factor and neglects other vital factors. Such farmers should bend their

efforts toward strengthening the points of the business in which they are weak rather than spend additional effort on the point in which they already excel. If a farm is strong in most of the vital factors it is almost certain to return a profit.

ORGANIZATION AND MANAGEMENT USED BY SIX SUCCESSFUL FARMERS

To arrive at an understanding of ways and means by which the farming in any section may be made more profitable, it is helpful to study the organization and management of farms which are returning exceptionally good profits, and compare them with other farms in the same section. Whether it is possible for other farmers in the area to realize as good results as these successful men would depend not only upon the application of good farm organization and management, but upon their having suitable land. The natural conditions on the farms of the successful operators were the same as those on a large number of farms in the area.

Successful Tobacco, Dairy and Hog Farm (Farm No. 253). The operator was one of the most successful operators of small farms studied. His income was derived mainly from dark-fired tobacco and dairy products, a type of farming applicable to many small farms of the region. Other enterprises which contributed to the receipts were the produce from one sow, wheat, and poultry. The volume of sales per acre exceeded the average of all farms by practically two-thirds. Crop yields were 48 percent higher than the average of all farms. The exceptional yields were due to the use of ground limestone and fertilizer, the regular application of manure, and the production of clovers. The expenses were low in relation to the receipts, yet purchases were made of both ground limestone and fertilizers. The expenses per $100 receipts amounted to only $38.

Successful Tobacco, Dairy and Hog Farm (Farm No. 253)

Labor income	$1,563	Total investment	$8,778
Operator's earnings	1,999	Principal items:	
Acres operated	101	Land and buildings	7,141
Acres in crops	50¼	6 cows	230
		1 brood sow	25
Principal items: Yield per A.		40 chickens	40
14½ acres corn ...bus.	45	3 work stock	175
9 acres wheat ...bus.	16	Farm machinery	900
1 acre korean lespedeza seed lbs.	225		
18 acres timothy and clover mixed ...tons	2	Farm expenses	$1,220
6¾ acres dark-fired tobacco ...lbs.	991	Principal items:	
		Hired labor	24
Farm receipts, total	$3,222	Machinery and auto	42
Principal items:		Building and fence repairs	50
Tobacco, 6,690 lbs	1,710	Feed and feed grinding	48
Dairy cattle and dairy products	1,062	Seed	28
Hogs	247	Fertilizer, ¾ ton	38
Wheat, 90 bus.	117	Limestone, 16 tons	32
Poultry and eggs	50	Other current expenses	77
		Insurance and taxes	95
		Unpaid family labor	600

Factors Affecting Profits

Receipts per acre	dollars	31.90
Crop index	percent	148
Expenses per $100 receipts	dollars	38
Price per lb. for tobacco	cents	25.6

Successful Hog and Tobacco Farm with Wheat and Beef Cattle as Additional Sources of Income (Farm No. 403). Altho smaller than the average of the farms studied, this farm was so organized and had such a volume of business that it returned a good labor income. The crop yields were almost one-third greater than the average. The sales, which were both crops and livestock, were of such volume that the receipts amounted to $34.42 per acre as compared with the average of $19.32 per acre. The expenses were kept low, and amounted to only $36 for each $100 of receipts, yet this operator purchased all items necessary, including six tons of fertilizer and 64 tons of ground limestone. The percent of the farm in crops was above the average and the number of animal units was 14.9 per 100 acres as compared with 6.8 for the average farm.

Successful Hog and Tobacco Farm with Wheat and Beef Cattle as Additional Sources of Income (Farm No. 403)

Labor income	$3,190
Operator's earnings	3,457
Acres operated	193
Acres in crops	130¾

Principal crops:	Yield per A.
40 acres corn ....bus.	50
40 acres wheat ....bus	17
30 acres clover, red-top and mixed hay ....tons	1½
14 acres soybean hay ....ton	1
4½ acres white burley tobacco ....lbs.	1,311

Farm receipts, total	$6,643
Principal items:	
Wheat, 520 bus.	1,040
Tobacco, 5,900 lbs.	1,280
Dairy cattle and dairy products	143
Beef cattle	962
Hogs	2,313
Poultry	144
Horses	281
Total investment (Beg. of yr.)	$21,281
Principal items:	
Land and buildings	15,890
3 dairy cows	300
10 beef cows	1,000
2 beef heifers, 2 calves, and 2 bulls	650
6 steers	300
10 brood sows and 1 boar	220
21 other hogs	105
75 chickens	75
9 work stock	1,300
Machinery	491
Farm expenses, total	$2,389
Principal items:	
Hired labor	910
Machinery repairs	50
Building and fence repairs	65
Feed, grain	256
Seed	134
Fertilizer, 6 tons	132
Limestone, 64 tons	64
Crop expense	92
Auto for farm use	125
Telephone for farm use	9
Other current expense	30
Insurance and taxes	255

Factors Affecting Profits

Receipts per acre	dollars	34.42
Crop index	percent	129
Expenses per $100 receipts	dollars	36
Animal units per 100 acres	units	14.9

Successful Tobacco, Dairy and Hog Farm With Strawberries and Poultry as Additional Sources of Income (Farm No. 93). This farm of approximately 250 acres, after allowing five percent interest on total investment, returned a labor income amounting to $3,639. The receipts per acre, amounting to $32.45, were slightly more than two-thirds above the average of all the farms. The crop yields were about average, while the productive man-work days were 8 percent above the average.

The receipts were rather equally divided between crops and livestock, 48 percent coming from the sale of crops and 46 percent from the net increases in livestock. The expenses amounted to

Successful Tobacco, Dairy and Hog Farm with Strawberries and Poultry as Additional Sources of Income (Farm No. 93)

Labor income	$3,639
Operator's earnings	4,003
Acres operated	247
Acres in crops	130¼

Principal crops:	Yield per A.
75 acres corn, bus.	30
15 acres oats, bus.	40
30 acres clover and redtop hay, ton	1
8 acres white burley tobacco, lbs.	1,092
2 acres strawberries (crates)	102

Farm receipts, total	$8,015
White burley tobacco, 8,740 lbs.	2,796
Corn,* 600 bus.	480
Strawberries, 200 crates	600
Dairy products and stock	1,516
Hogs	1,574
Poultry and eggs	566

Total investment (Beg. of yr.)	$15,467
Principal items:	
Land and buildings	12,475
13 cows	780
2 heifers, 5 claves and 1 bull	205
2 brood sows, 19 hogs	184
175 chickens	175
7 turkeys	24
7 work stock	700
Machinery	353

Farm expenses, total	$3,603
Principal items:	
Hired labor	1,420
Machinery repairs	50
Auto for farm use	150
Building and fence repairs	190
Feed grain and grinding	899
Pasture, 25 acres	50
Seeds	133
Fertilizer, 4¼ tons	108
Limestone, 18 tons	45
Crop expense	62
Crates	60
Insurance and taxes	160
Other current expenses	28

Factors Affecting Profits

Receipts per acre	dollars	32.45
Crop index	percent	96
Productive man-work units per man	units	272
Animal units per 100 acres	units	10.6
Size	acres	247
Intensive crops	acres	10

* Rented and given as share to landlord.

only $45 for each $100 of receipts and the operator spent all that was necessary for the efficient operation of his farm. The tobacco was of good quality as indicated by the price he received per pound. The yield of strawberries was high, averaging 105 crates per acre. Whole milk was sold wholesale and good returns were received from the dairy enterprise.

Successful Tobacco, Dairy and Hog Farm (Farm No.315). This farm of approximately 260 acres returned good profits to its operator. The volume of business was sufficiently large to

Successful Tobacco, Dairy and Hog Farm (Farm No. 315)

Labor income	$3,141
Operator's earnings	3,689
Acres operated	258
Acres in crops	134½
Principal crops:	**Yield per A.**
65 acres corn ....bus.	35
40 acres clover and redtop mixed ....ton	1
20 acres soybean hay ....ton	1
9 acres white burley tobacco ....lbs.	1,222
Farm receipts, total	$6,198
Principal items:	
Tobacco, 11,000 lbs.	2,784
Dairy products and stock	1,612
Hogs	1,246
Poultry	40
Total investment	$14,731
Principal items:	
Land and buildings	10,486
14 cows	840
35 heifers and 1 bull	1,180
4 brood sows	80
50 chickens	50
5 work stock	550
Machinery	701
Farm expenses, total	$2,320
Principal items:	
Hired labor	1,020
Machinery repairs	40
Building and fence repairs	125
Feed, grain	126
Seeds	64
Fertilizer, 1 ton	36
Veterinary and horse-shoeing	95
Spray material	11
Fuel and oil for farm work	150
Auto for farm use	150
Telephone	84
Taxes	137
Steaming plant beds	30

Factors Affecting Profits

Receipts per acre	dollars	24.02
Crop index	percent	107
Productive man-work units per man	units	348
Expense per $100 receipts	dollars	37
Animal units per 100 acres	units	12.9

be an important factor for profits. The farm was average in total acreage and yields were somewhat above the average. Forty-five percent of the total receipts were derived from the sale of white burley tobacco while the dairy and hog enterprises together contributed only 46 percent. Hired labor was the largest item of expense and amounted to almost half of the total expenses. However, as a whole, the expenses amounted to but $37 for each $100 of farm receipts. The size of business was an important factor in the excellent labor accomplishment.

Successful Crop and Livestock Farm (Farm No. 408). The operator of this general crop and livestock farm was one of the most successful farmers in the region. The receipts were derived from more enterprises than possibly any other farm in the study. The livestock returned $12,010, or 48 percent of the total receipts. The net increases from livestock were: Beef cattle $4,448, hogs $4,332, dairy products and dairy cattle $2,880,

Successful Crop and Livestock Farm (Farm No. 408)

Labor income	$15,665	Total investment (Beg. of yr.)	$73,852
Family living from the farm	1,312	Principal items:	
Operator's earnings	16,977	Land and buildings	63,808
		Livestock	5,198
Principal crops:	Yield per A.	Machinery	3,035
Corn, bus.	59	Feed and supplies	1,811
Tenant corn, bus.	50	Farm receipts, total	$25,226
Corn silage, tons	8	Crops	11,643
Wheat, bus.	14	Livestock	12,010
Oats, bus.	25	Other	1,200
Barley, bus.	9	Increase in feed and supplies	373
Sweet clover seed, lbs.	585	Farm expenses, total	5,868
Alfalfa hay, tons	2.8	Current	3,800
White burley tobacco, lbs.	1,300	Unpaid family labor	1,200
Dark-fired tobacco, lbs.	1,183	Depreciation	868

Factors Affecting Profits

Receipts per acre	dollars	53
Crop index	percent	149
Productive man-work units per man	units	404
Productive animal units per 100 acres	units	13.2
Percent of total crop acres in intensive crops	percent	7.1
Farm above average in size	percent	74

and poultry $350. The crops returned $11,643, of which tobacco amounted to $7,767, or 31 percent, of the total receipts. Korean lespedeza seed, sweet clover seed, and wheat were important additional sources of income. Expenses on this farm were kept low, amounting to only 23 percent of the total receipts. Hired labor was the largest item. It amounted to $1,376.

Altho this farm was much larger than the average, in the number of acres operated, the receipts per acre were two and three-fourths times the average. Not only were the crop yields 50 percent greater but the productive man work was more than one and one-half times as efficient as the average. The farm was stocked with twice as much livestock as the average farm of the area. A detailed study of the record of this farm showed that most of the enterprises yielded excellent returns.

Outstanding Crop and Livestock Farm (Farm No. 450). This farm is an exceptional one, and is an excellent example of what can be done in this area when a full measure of intelligent management and industry is applied. It is well organized. The labor income of the operator was more than ten times the average. The principal feed crops grown were corn, hay and oats. Corn occupied 37 percent of the total crop acreage, wheat and oats, 31 percent, and hay, 10 percent. Dark-fired tobacco, white burley tobacco, and Korean lespedeza and red clover seed, were the cash crops produced. Tobacco, which contributed more than one-third of the total receipts, occupied 7.2 percent of the land utilized by crops. The sale of Korean lespedeza and red clover seed returned 15.3 percent of the total receipts. These crops occupied one-fifth of the total acres in crops. The sales of wheat, corn and clover hay contributed 18.6 percent of the total receipts.

The livestock, in the order of their importance as to the amount of receipts, were hogs, beef cattle, sheep, poultry and dairy cattle. The receipts from livestock amounted to 24 percent of the total receipts, of which hogs amounted to 13 percent, beef cattle 6 percent, sheep 4 percent, poultry and dairy cattle 1 percent.

The total expenses amounted to $8,217 or $29 for every $100 of receipts. The principal items were hired labor $4,555, fertilizer 25 tons, $1,070, seeds $133, repairs on buildings, machinery and fences $415, fuel and oil and auto for farm use $250, insurance and taxes $470 and other current expenses $573. Depreciation of real estate and machinery amounted to $741.

The rotation followed was corn and tobacco, wheat, and clover two years. More than enough feed for the livestock was produced.

This farm was above the average in all of the factors used as measures of success. The crop yields exceeded the average of all the farms. Sales per crop acre exceeded the average of all farms by nearly one-half, while work accomplished per man exceeded the average by more than one-third. The exceptional labor accomplishment was largely because work was carefully

Outstanding Crop and Livestock Farm (Farm No. 450)

Labor income	$16,897	Total investment (Beg. of yr.)	$73,227
Family living from the farm	1,850	Land and buildings	60,790
Operator's earnings	18,747	Livestock	8,195
		Machinery	3,425
Principal crops:	Yield per A.	Feed and supplies	817
Corn ..... bus.	36		
Wheat ..... bus.	8	Farm receipts, total	28,775
Oats ..... bus.	15	Crops	21,079
Korean lespedeza seed ..... lbs.	300	Livestock	6,913
Red clover seed ..... bus.	1.4	Increase in feed and supplies	783
Red clover hay ..... tons	2		
White burley tobacco ..... lbs.	909	Farm expenses, total	8,217
Dark-fired tobacco ..... lbs.	1,000	Current expenses	7,476
		Depreciation	741

Factors Affecting Profits

Receipts per acre	dollars	28.21
Crop index	percent	104
Productive man-work units per man	units	343
Productive animal units per 100 acres	units	9.4
Percent of crop land in intensive crops	percent	5

planned beforehand. The percent of intensive crop acres was 6 percent above the average and the animal units per 100 acres were nearly forty percent above the average of all farms. This naturally made for a more complete utilization of available labor. The size of the farm was nearly 4 times greater than the average.

SUMMARY AND CONCLUSIONS

This report presents an analysis of the farm business of 303 farm operators for the farm year 1929. One hundred and thirty-nine of the farms were in Todd County, 67 in Christian County and 97 in Warren County. The region studied is a limestone area in southwestern Kentucky. It has good market facilities and excellent roads which afford year-round transportation for products by truck from farms to both local and outside markets.

Most of the 303 operators were land owners. Eighty-seven percent of the land was tillable. The average size of the farms was 274 acres, with an average of 128 acres in crops.

The type of farming of the area is a combination of crop and livestock enterprises. Fifty-five percent of the total receipts was derived from crops and 37 percent from livestock.

The average capital investment in all farms was $20,973. Of the total investment, an average of 85 percent was in land and buildings, and 15 percent in working capital.

The total farm receipts averaged $5,193 and ranged from $332 to $28,775. The sales of crops amounted to 55 percent of the total farm receipts of which tobacco accounted for 39 percent. Thirty-seven percent of the total farm receipts came from livestock. The hog enterprise contributed about a third, dairy cattle and the sale of dairy products a third, beef cattle about a sixth, poultry and sheep the remainder.

The farm furnished items valued at $628 to the family living. Of this, food constituted 54 percent, fuel 1 percent and the use of the family residence 45 percent.

The total farm expenses averaged $2,693. The largest items of expense were, hired labor which averaged 44 percent of the

total expenses, feed 9 percent, seed, limestone and fertilizer 9 percent, taxes and insurance 9 percent.

The most successful farms excelled in volume of sales, yields of crops, labor efficiency, acres of intensive crops, size of farm and number of livestock kept.

The receipts per acre for the 303 farms averaged $19.32. For the most profitable farms they averaged $27.13 as against $11.87 for the least profitable.

Farms with crop yields 25 percent above the average produced labor incomes that averaged $2,418 as against $321 for the group of operators with yields 25 percent below the average.

Efficiency of labor as measured by the amount of work accomplished averaged 35 percent higher on the most profitable group of farms than on the least profitable group.

One of the significant facts brought out is the marked effect the production of intensive crops exerted on profits. The intensive crops consisted mostly of tobacco, with some strawberries and truck. Farms having a relatively large percentage of intensive crops produced, on the average, considerably greater profits than those having a relatively small percentage.

The size of business had a marked influence upon profits. On the average the larger farms produced larger profits than the smaller farms.

The more heavily stocked farms showed the larger profits.

Farm profits very rarely depend upon one factor alone but usually upon a combination of factors. If a farm is strong in most of the vital factors it is almost certain to return a profit.

The organization and management of outstanding successful farmers are described on pages 39 to 46 of this bulletin.